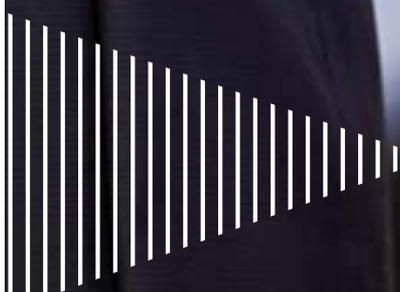


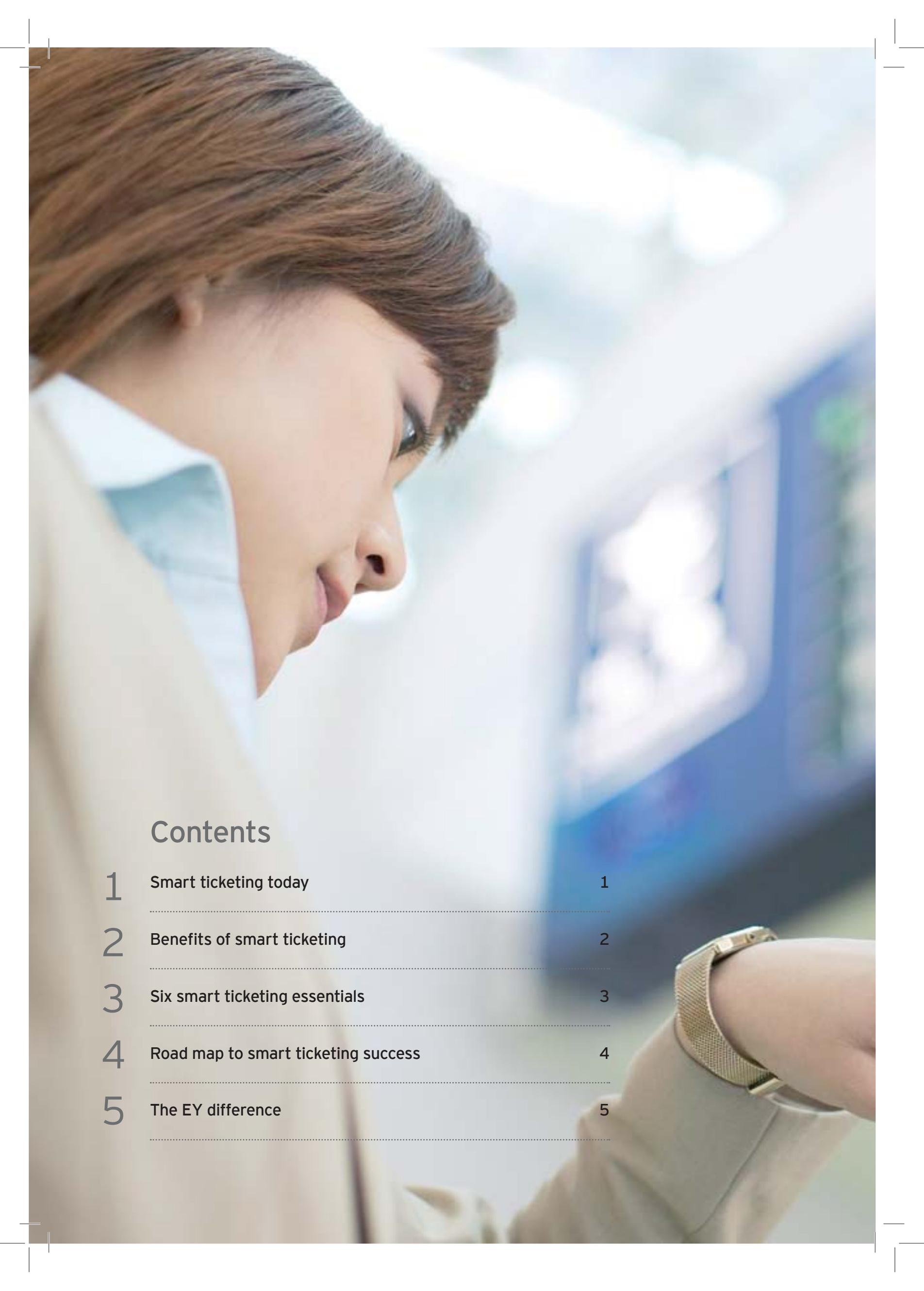
# Smart ticketing on transport

2014



**EY**

Building a better  
working world



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## Smart ticketing today

By 2020, the smart cities industry will be worth an estimated US\$400b globally.<sup>1</sup>

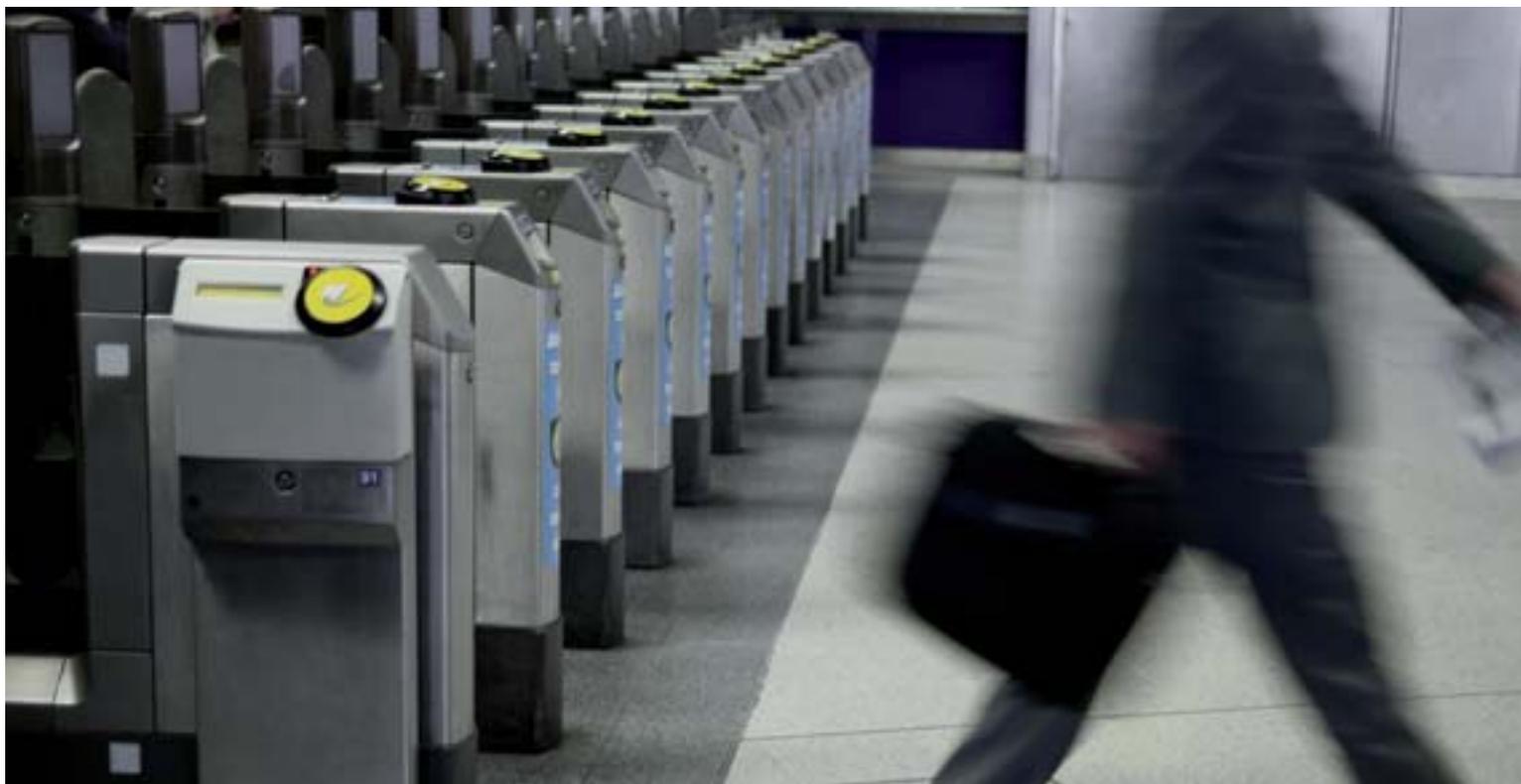
Of this US\$400b, a substantial share of US\$40b<sup>2</sup> is expected to be allocated to the UK smart cities industry, including smart ticketing and smart transit as a core element of an effective smart city.

### Why smart ticketing?

Implementing a smart ticketing scheme helps a city or commercial operator to increase patronage, reduce fraud, lower operating costs and increase accessibility to an integrated transport network. This in turn leads to simplified public transport and positions smart transit within and between cities as a “core utility.”

All major cities will allow passengers to travel, not only using a smart card, but also using contactless bank cards, smart phones and even wearable devices – once technology and customer demands are mature enough.

The closer integration between commercial operators, transport authorities and card and technology providers will allow new technologies and seamless customer journeys to happen sooner than we expect. Beyond public transportation, smarter city design, smarter energy use and increased citizen participation will mean a smarter environment, smarter economy and smarter living.



1 Pyramid Research's *Location Based Services Market Research 2011-2015*, May 2011 – see more at <http://www.scottishpolicynow.co.uk/article/smart-ticketing-and-smart-cities#sthash.Ad9r3Mog.dpuf>

2 Pyramid Research's *Location Based Services Market Research 2011-2015*, May 2011 – see more at <http://www.scottishpolicynow.co.uk/article/smart-ticketing-and-smart-cities#sthash.Ad9r3Mog.dpuf>

## Benefits of smart ticketing

Both customers and operators benefit from smart ticketing. Increased convenience for passengers, combined with more flexible purchasing methods for a simpler range of ticketing types, can help generate a modal shift toward public transport. This is a key step in increasing social inclusion, reducing traffic congestion and lowering carbon emissions. For local public transport executives, simpler and fewer products, lower prices and easy access through digital channels, backed up by a contact center and accurate network service information, all translate to greater customer interaction and increased breadth of relationships.

In London, we have seen an increase in distances traveled on public transport of 45% between 2000 and 2010, partly induced by the introduction of the Oyster Card in 2003.<sup>3</sup>

### For passenger transport executives and the Government

- ▶ Simpler and more accessible transport networks through smart
- ▶ Significantly reduced administration costs for data collection as a result of a more effective data system
- ▶ Increased customer, transaction and network usage information to inform transport strategy

### For customers

- ▶ Provides the opportunity to integrate smart transport with other smart-enabled utilities (e.g., retail, education, banking or entertainment)
- ▶ Greater flexibility through access to new ticket and payment types
- ▶ Easy-to-manage services via credit or debit card, smartphone or on the web
- ▶ Greater customer security and fraud protection, as lost or stolen cards can be blocked immediately with any remaining balance refunded
- ▶ Faster boarding, as the search for cash when purchasing a ticket is eradicated
- ▶ Faster, easier transactions due to the speed at which products are loaded and read

### For operators

- ▶ Increased customer patronage of between 3%-6% per mode and typically between 10%-25% per smart scheme<sup>4</sup>
- ▶ Increased revenue by 4%-5% per mode and typically by 15%-20% per smart scheme<sup>5</sup>
- ▶ Reimbursement based on a significantly increased and timely data source
- ▶ Improved product validation and reduced fraud by 3%-5% per mode
- ▶ Optimized pricing and operational strategies to reduce congestion at peak hours and move toward the "right place, right time, right cost" promise of smart transit
- ▶ Opportunities for location-based services (LBS) partnering with retailers, to offer relevant products and services to the passenger and tapping into an estimated consumer revenue of £6.2b by 2015<sup>6</sup>
- ▶ Increased customer information available leveraged for marketing purposes, influencing user loyalty
- ▶ Better provision of services and instant information through real-time delivery to customers

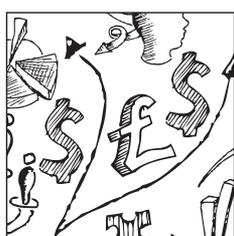
<sup>3</sup> Pyramid Research's *Location Based Services Market Research 2011-2015*, May 2011 – see more at <http://www.scottishpolicynow.co.uk/article/smart-ticketing-and-smart-cities#sthash.Ad9r3Mog.dpuf>

<sup>4</sup> EY benchmarking research

<sup>5</sup> EY benchmarking research

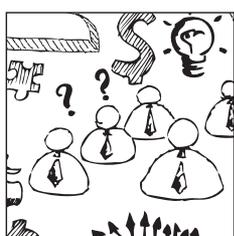
<sup>6</sup> Pyramid Research's *Location Based Services Market Research 2011-2015*, May 2011 – see more at <http://www.scottishpolicynow.co.uk/article/smart-ticketing-and-smart-cities#sthash.Ad9r3Mog.dpuf>

# Six smart ticketing essentials



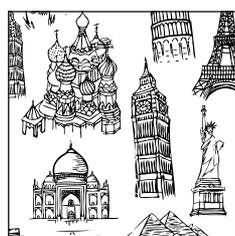
1

Acquire and allocate the right level and mix of funding



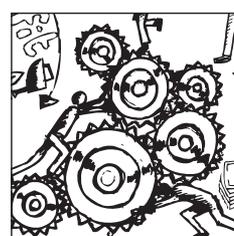
2

Keep pace with rapidly changing customer demands and expectations



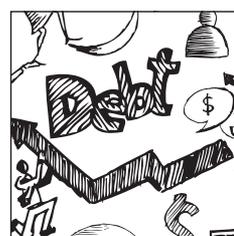
3

Obtain and keep national and local political support



4

Acquire the technology you need now, and for the future



5

Card providers and banks are essential business partners for cEMV (Contactless American Express, Mastercard, Visa) schemes



6

Think multimodal when you design the scheme

## The impacts of smart ticketing

**You will need:**

- ▶ To continually benchmark with other customer service organizations
- ▶ To correctly address tax issues and reporting and regulatory changes
- ▶ To reinforce UK and EU data standards and cybersecurity protocols
- ▶ To bring in new skills to apportion cost and revenue, manage technology suppliers and effectively engage with operators

**You will need:**

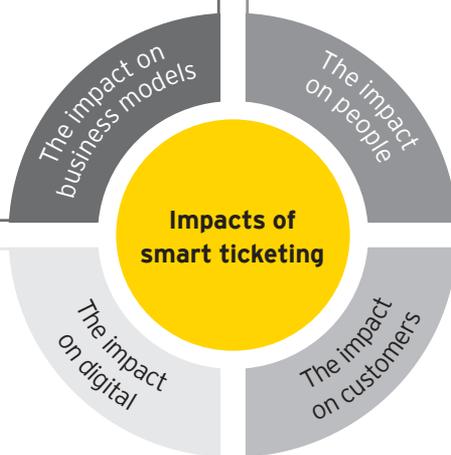
- ▶ To allow for an increase – typically, 250-400 new business processes are required when designing a scheme
- ▶ To bring in new roles, skills and experience to manage the schemes effectively
  - ▶ To deploy transformation program management skills for continual improvement in levels of customer focus
  - ▶ To expect significant cultural change during the implementation of the scheme

**You will need:**

- ▶ To facilitate the harnessing of big data collected from millions of customer journeys in order to benefit from a more accurate customer demand forecast
- ▶ To efficiently manage your data analytics, data sharing, security and compliance elements for a successful scheme
- ▶ To efficiently manage websites, social media, apps and customer interfaces for an integrated experience
- ▶ To think and act like an online retailer or bank
- ▶ To gear up for the new hybrid payments landscape – bank, smart card, paper ticket and mobile

**You will need:**

- ▶ To understand customer requirements, expectations and preferences
- ▶ To design and deliver a seamless and integrated customer experience
  - ▶ To gather feedback from all customer groups, as well as international benchmarks
  - ▶ To communicate real-time information through live updates, social media, on-site and online channels



## Road map to smart ticketing success

### 1. Set a clear vision

Schemes start with business requirements and rules, not the technology. Setting a clear vision and business requirements, followed by the technology requirements, is crucial. Getting it right first time will mean that change required during implementation is minimized. Nevertheless, a successful program in the long term must be future-proofed for changes in technology, customer demands and stakeholder needs.

### 2. Ensure political agreement

As a prerequisite to project kickoff, obtain and keep political and commercial agreement from the outset. Strong engagement with commercial and rail operators is required early on. Embed an effective stakeholder management system to ensure positive relationships with governing bodies and industry-wide contacts.

### 3. Identify sources of funding

Identify and test all potential sources of funding throughout the life cycle of the program. Capital should be sought from the Treasury, the Department for Transport and alternative sources as increased funding becomes available.

### 4. Ensure customer focus

The customer is central to transformation, so ensure the customer experience is holistic, integrated, personalized and relevant. This can be achieved by designing schemes around customer needs, i.e., value for money, security, safety, simplicity, flexibility and speed – for example, reduced queuing time, reduced barriers to accessing schemes, lowest possible “clicks to buy” online and real-time communication through formally managed channels.

### 5. Install effective governance

Before commencing implementation, install effective program governance and management. Establish and utilize robust control measures to warrant business readiness.

### 6. Focus on delivery in stages

The actual roll-out process should then follow a staged implementation approach, broken down into manageable delivery phases.

### 7. Make way for change

A smart ticketing transformation program could be used as a catalyst for change within the organization. Given the scale of investment, use this opportunity to undertake a customer-led transformation that will also improve employee experience and result in a business culture of “customer first.”

### 8. Build strong relationships

Building strong and effective relationships with proven technology providers is key due to the long-term commitment nature of the program. System infrastructure is likely to develop further within two to three years of implementation.

### 9. Build value into the service

Consider how you will ensure value through retail opportunities and new products, deliver faster speed through barriers, lower the cost of sale, reduce fraud and increase customer data.

### 10. Measure success

Realize the benefits to monetize investments. Clear customer satisfaction measures should be built into staff scorecards, which may come from the vast amount of customer data available through the scheme.



## The EY difference

### How EY can help

EY can support you in the following areas:

- 1 To identify and acquire funding
- 2 To identify, tender, appoint and manage technology partners
- 3 To scope, design, mobilize as well as deliver the program
- 4 To increase probability of benefits realization

### EY's strengths

Proven methodology

Proven experience

National and international clients

Dedicated customer and digital teams

Strong relationships

Cross-capability expertise

Global benchmarking

### How EY delivers

Requirements are fulfilled, risk is reduced and implementation is faster.

We have recently delivered Transport for Greater Manchester's (TfGM) smart ticketing program, and other national as well as international schemes.

We work with clients across the globe to develop smart ticketing schemes and help them get it right first time.

We provide cutting-edge insight and approaches to improve customer experience and digital transformation.

Our strong relationships with central and local government, commercial operators and technology providers mean we can help our clients navigate the industry landscape and build relationships.

Global cross-capability professional services mean risk, tax, commercial arrangements and other opportunities and challenges are addressed.

We conduct leading research on smart ticketing and using global best practice to help ensure success for our clients.

"EY was selected to help Transport for Greater Manchester (TfGM) design and then deliver the programme of work that would provide Greater Manchester with a world-class smart ticketing scheme. EY provided a team with experience, empathy and expertise, who drove the workload hard, but created and performed as one seamless programme team, getting a live smart ticketing scheme ready for launch in 18 months – an unprecedented milestone.

EY helped TfGM manage an effective working relationship with the technology providers, as well as providing market-leading insight into digital, retail, commercial, customer and channel strategies. They provided us access to their international networks, and to other public transport authorities in leading global cities.

The EY team reduced over time, showing that EY transferred skills to the TfGM team enabling a reduction in the EY team and an increase in our capability in delivering these types of programmes."

**Dr. Jon Lamonte, Chief Executive, Transport for Greater Manchester  
Lead Director General, DfT Smart Cities Partnership**

EY can help clients significantly reduce risk and increase chances of getting smart ticketing right first time.

# Contacts

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EY | Assurance | Tax | Transactions | Advisory

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EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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